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Learning Wellness: How ageing Australians experience health information literacy

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Abstract

Given identified synergies between information use and health status greater understanding is needed about how people use information to learn about their health. This article presents the findings of preliminary research into health information literacy which sought to explore how this is phenomenon is experienced among ageing Australians. Analysis of data from semi-structured interviews has revealed six different ways ageing Australians experience using information to learn about their health within one aspect of community life. Health information literacy is a new terrain for information literacy research endeavours and one which warrants further attention by the profession to foster and promote within the community.

Introduction

Health information literacy is an emergent topic of discussion within the library and information profession. The term health information literacy was first introduced into professional discourse in 2003 by the Medical Library Association Task Force on Health Information Literacy who provided a working definition as being:

... the set of abilities needed to: recognise a health information need; identify likely information sources and use them to retrieve relevant information; assess the quality of the information and its applicability to a specific situation; and analyse, understand and use the information to make good health decisions (MLA, 2003, para 5).

Several factors exist to advocate the importance and relevance of health information literacy for individuals, and the need to promote and develop this within the broader community. These include acknowledged interplay between health and information use, and the rising demand for community

access to health information emerging from changing interrelationships between professionals and consumers in the health care industry. Furthermore, the collective health status of our community has significant implications for current and future demand on health care systems, and health information literacy is an important tool that can assist individuals with maintaining good health and wellbeing.

The modern world reflects an economy underpinned by knowledge, and it is information that enables individuals and communities develop new knowledge to resolve issues on personal, professional and social levels. It has also been acknowledged that individual health behaviour is significantly influenced by knowledge, attitudes and beliefs, and synergies between these attributes can determine present and future health status (Australian Institute of Health and Welfare, 2008). If knowledge has the power to influence and shape an individual's health status it is important that we understand how people use information to learn about their health; that is we need to understand how people experience health information literacy.

This paper discusses the findings of preliminary research which explored how health information literacy is experienced in one aspect of community life. It reveals and provides early insights into:

- a) variation in how ageing Australians are using information to learn about and maintain their health, and
- b) variation in what people constitute as information that is used for maintaining health.

The preliminary findings offer further scope to existing research in the areas of health information seeking and health information behaviour by investigating information use in a more holistic and collective sense. This has provided initial insights into how people experience their health information world outside of situations or contexts where information is actively sought.

Health Information Literacy: The evolution of new terrain for the information profession

Health information literacy has received minimal attention within the discourse of the library and information profession to date, and as such few examples of published literature exist which explicitly identify health information literacy as the focus for discussion, or explore the concept and its importance in a community context (Burnham & Petersen, 2005; Candy, 2005; Cullen, 2005; Grant, 2002). Literature relating to health information literacy is presently confined to discussion within American and Canadian contexts with no examples evident from an Australian perspective, although the NHS Education for Scotland's 2008 publication *Better Informed for Better Health* suggests interest in this topic is beginning to evolve.

The paucity in health information literacy literature is partly explained by its relatively recent definition and inclusion into the information literacy landscape although professional discussion about information literacy itself has only unfolded within the last two decades. During this time information literacy research has predominantly focused on its application in academic and education contexts (Bruce, 2000, 2008; Harding, 2008; Lloyd & Williamson, 2008). While research endeavours have more recently expanded to include its application in workplace environments (Cliftlands, 2005; Kirton & Barham, 2005; Lloyd, 2005; Oman, 2001), research within community settings is still largely an emerging field of study (Lloyd & Williamson, 2008; Partridge, Bruce & Tilley, 2008). Despite limited published literature relevant to information literacy in community contexts there is consensus on the importance and need for research in this area.

Although several factors affirm the importance and relevance of health information literacy in the community, a further impetus to champion the agenda is the growing body of work investigating health information seeking. Health information seeking is broadly concerned with examining the ways in which individuals go about acquiring information for health purposes and as a research focus it has received immense attention in the literature since the mid 1990's. Specifically health information seeking relates to how and why people acquire health information, the channels they locate health information through, preferred mediums for receiving health information and how found

information is utilised (Lambert & Loisel, 2007; Warner & Procaccino, 2004). The focus of research and resulting literature in this field is largely directed towards an examination of health information seeking behaviours based on attributes such as age, gender and health status (for example Goldner, 2006; Hardt & Hollis-Sawyer, 2007; Kim, Lustria, Burke & Kwon, 2007; McCaughan & McKenna, 2007; Porter & Edirippulige, 2007; Wathen & Harris, 2006; Warner & Procaccino, 2004; Wicks, 2004).

While existing research on health information seeking provides insight into why people seek information, the types of sources referred to and how retrieved information is used, it does not allude to how people use information to learn about wellness. Health information seeking research typically adopts a quantitative approach to data collection and produces findings which are of a statistical rather than experiential nature. In addition, health information seeking research reveals several issues which affirm the need for health information literacy in the community, namely the ability of health information seekers to evaluate and use found information effectively, and to deal with information overload.

The primary aim of information literacy research endeavours in community settings is to investigate how people experience and interact with information for the purpose of learning about their health. Essentially, information literacy is a 'relational' phenomenon, in which people use information effectively for a purpose (Bruce, 1997a, 2008); in the case of health information literacy to learn about their health. This focus is further explored in Bruce (2008) and Partridge, Bruce and Tilley (2008), with the latter proposing "It is the focus on 'learning' that distinguishes IL research generally from other related fields of enquiry such as information seeking and use research and information behaviour" (p.119). Little is currently known about the experience of health information literacy within individual or community contexts, and no published research exists which explores how people are using information to learn wellness. For this reason the experience of health information literacy in the community represents an important knowledge gap that needs to be filled.

This paper starts to meet this need by reporting on research which explored variations in the way people experience using information to maintain health.

The Research Project

The research focus of this project was to investigate the experience of health information literacy among ageing Australians. This included two primary aims:

- Explore variation in how ageing Australians are using information to learn about and maintain their health, and

Explore variation in what people constitute as information that is used for maintaining health.

The first aim was identified in order to examine the whole experience of health information literacy. Exploring variation in what constitutes information within that experience was identified as a secondary aim in order to avoid presupposing what people define as 'information'.

Research approach

The research approach selected for this project was phenomenography, a qualitative research approach which seeks to explore differences and variations in the way people think or experience particular phenomena (Limberg, 2000; Bruce, 1999). It is underpinned by the notion that individuals collectively experience and understand phenomena in a number of qualitatively different but interrelated ways (Bruce, 1997b; Marton, 1996).

Interview is the most common method through which this type of research is conducted and identification of interviewees is typically (and deliberately) non-random as this is influenced by the specific phenomena which is being explored (Limberg, 2000). The nature of questions used in phenomenographic interviews are typically open-ended so as to allow participants to articulate their own understanding of the phenomenon which is under investigation (Bowden, 2000). In this project, the specific phenomenon under investigation was the experience of health information literacy amongst ageing Australians, and the selection of interview participants was restricted to persons aged over 55.

Data collection

Data collection took the form of semi-structured interviews whereby participants were asked a set of questions which directed participants towards their actual experiences of the phenomenon in question. The selection of questions formulating the research tool was influenced by an initial pilot study involving two interviews. Interview questions were revised after analysis and reflection on responses obtained through the pilot process. Certain questions were considered as being too abstract, and a more concrete approach was needed to focus participants' towards the phenomena under investigation. The pilot study also revealed questions which did not elicit responses aligned to their intended purpose and were revised accordingly.

Questions formulating the final data-gathering tool included:

- Can you describe a time when you used information to stay healthy?
- Describe your experience of using information to learn how to stay healthy.
- What kinds of information have you used in learning how to stay healthy?
- Can you tell me about using information to help other people to stay healthy?

A range of follow up questions were also employed to probe or elicit further information from participants about responses they had provided. This comprised questions such as 'Can you tell me more about that?', 'Can you explain that in a different way?', and 'Is there anything else you would like to say about this?'. The length of interviews ranged from 24 to 47 minutes. All interviews were audio recorded with the permission of each participant. Interviews were then transcribed verbatim into written transcripts for the purposes of analysis.

Participants

Four participants were interviewed for the research project. All participants were female, ranging from 57 to 70 years of age. Although the sample size for the project was relatively small, the number of participants is not dissimilar to other phenomenographic studies which have been undertaken (McMahon & Bruce, 2002). From this sample an analysis of critical variation in people's experience was possible.

Data analysis

The aim of data analysis with phenomenographic studies is to uncover variation in how the phenomenon under investigation is experienced (Bruce, 2000; Limberg, 2005). Analysis was undertaken by reviewing written transcripts to identify the similarities and differences between how participants expressed the experience of health information literacy. The intended outcome of this process is the identification of a number of categories which reflect the various ways the phenomenon is experienced (Edwards, 2007). Phenomenographic categories may be derived from one or more participants. It is the variation of experience that is of primary importance, not how many people show evidence of it.

As a result of this process six categories of description were established illustrating the various ways individuals and the collective group experienced health information literacy. Attention was then given to examining the meaning and focus associated with the various experiences, which respectively form the referential and structural aspects of the phenomenon under investigation. Critical differences in how information is constituted in each category are also described. The categories of description are presented and discussed in the following section.

Ways of Experiencing Health Information Literacy

Analysis of the data gathered through interviews has revealed six different categories which depict various ways ageing Australians experience using information to maintain health. It should be emphasised that these findings

are indicative in nature, and changes to the categories presented may occur as further research is conducted.

The six categories uncovered as part of this research are as follows:

Category 1. Health information literacy is experienced as striving for wellness

Category 2. Health information literacy is experienced as reaffirming wellness

Category 3. Health information literacy is experienced as knowing myself

Category 4. Health information literacy is experienced as protecting myself

Category 5. Health information literacy is experienced as screening knowledge

Category 6. Health information literacy is experienced as storing knowledge

The following sections briefly outline the six categories by providing an explanation of the corresponding meaning, focus and description of how health information literacy is experienced in each instance. Illustrative quotes obtained from interviews are also included to support research findings.

Category 1: Health Information Literacy is experienced as striving for wellness

Meaning:

In this category people see health information literacy as trying to achieve better health or maintain their current level of health.

Focus:

In this category, the primary focus is on ***purposeful identification*** of how to be healthier or to maintain wellness.

Illustrative quotes:

Int. 2 (p.1): What I did to start with was I actually set myself out a week's timetable and I did, I wrote down everything I ate through the day. And actually did count up the calories for a day, to see approximately where the amount I was eating came from.... I actually

counted how many calories I was getting for probably about 2 weeks and started cutting down bits here and there and so forth.

Int. 3 (p.1): Well basically at the time I was using information to be able to do things that didn't give me pain or to help with the pain, to avoid having pain or stress on the body, changing the whole way that you did things, your attitude towards doing jobs or normal daily living... Not so much buying equipment, but information about learning how to utilise things around you in the home to have a better result, less pain.

In this category, the stimulus for engaging with information is triggered by a specific health issue or concern and the individual's "view" of their health status is focussed on staying healthy. Although the individual is experiencing a health issue or concern they do not perceive themselves to be unhealthy, but are using information because of a desire or need to learn in order to improve an existing level of health, or maintain their current level of health.

Information received in this category represents new information, it has not been previously acquired or known. Retrieval of information occurs exclusively with a range of external sources and data suggests information retrieval occurs with a very rich and diverse array of resources. This includes advice from general practitioners and authoritative health publications as well as more informal information avenues such as conversations with friends or family.

The overall information experience in this category is very active in nature as there is conscious awareness of an information need and a proactive approach is adopted with respect to identifying and retrieving information sources. There is an identified purpose for found information and once obtained this is used in an immediate or imminent manner.

Category 2: Health Information Literacy is experienced as reaffirming wellness

Meaning:

In this category people see health information literacy as reconfirming “healthy” and its importance for personal wellness.

Focus:

In this category, the primary focus is on **reminding or validating** the importance of wellness.

Illustrative quotes:

Int.1 (p.5): I sort of looked at it [the information] and went “Well I basically do that”, and that would be that. I don’t think I’ve registered this information, because I know it. I’ve just glanced through it and said “Yes, yes, yes”.... I think that when I looked at it I thought “Well, yes, I’m doing pretty well”.

Int.4 (p.1): I used that chart to put up on my refrigerator to remind myself about trimming meat, trimming excess fat off meat, and limiting some of the foods that I ate.... I put it there as a reminder to look at how unhealthy our appetite, or our food or the food that we consume has become.

In this category, the stimulus for engaging with information is derived from external factors. This occurs as a process which is passive in nature whereby information is received or encountered instead of pursued. Information does not represent a new source of learning it is information which is already known, but used to confirm existing knowledge or behaviours which are considered to be ‘healthy’, and to remind and reinforce why maintaining good health is important. For this reason the individual’s view of their health status is focussed on staying healthy.

Pictorial resources (rather than textual) are particularly influential and data suggests that visual imagery which represents being unhealthy, or in a state of unwellness is especially strong for communicating information about why being healthy is important. Encounters with this type of imagery serve as reminder of the consequences of living an unhealthy lifestyle, and the associated impact this can have on personal health.

Illustrative quotes:

Int.4 (p.5): Recently there's been a kind of a glut of those health shows... and you see that there are people on them who are relatively obese, who are doing an exercise program.... With the kind of diet we are living on these days we can easily be overweight. I'm not too keen on the idea or the way it is presented [the health shows], but it is a message I think, it is information about "this is what happens".

Int.1 (p.3): And I suppose also too I abhor people that are grossly overweight. I see them eating foods and things like this which are so inappropriate ... I just feel they are putting themselves into the grave.

Category 3: Health Information Literacy is experienced as knowing myself

Meaning:

In this category people see health information literacy as understanding your own body through reading and responding to bodily cues.

Focus:

In this category, the primary focus is on ***the body***.

Illustrative quotes:

Int.2 (p.4): But I've learnt that I'd try some things but I've had to listen to my body. Because one of the things I can't do is I can't cut out snacks. Because if I cut out those snacks I'm actually physically in trouble. So no matter what information I've found I've realised that I've got to listen to my body.

Int.1 (p.2): You know things that don't agree with you, so therefore you don't force yourself to have them.

In this category the stimulus for engaging with information is triggered by internal factors and involves having an awareness and understanding of one's own physical self. The way in which information is obtained suggests a

process which is introspective and reactive in nature. Furthermore the body comprises the sole source of information with no apparent consideration or engagement with information sources external to the body on conscious or subconscious levels.

Information obtained from the body constitutes a conscious awareness of physical changes or bodily reactions. This information is then used as a stimulus to recognise that a change in behaviour is needed, that certain behaviours should not be repeated, or that changes should be considered in the future in order to maintain wellness. Learnings gained through past experiences with one's own body are a recognised source of information in this category. These learnings appear to form a personal knowledge bank about how the body has behaved or reacted previously, which often predicts future behaviour for the purpose of maintaining good health.

Illustrative quotes:

Int.4 (p.2): It's probably when your clothes don't start to fit you, or things start to get a bit tight, or you start to feel a bit bodily uncomfortable. And then you think "Oh, I really need to do something about this."

Int. 3 (p. 2): If you overdo it, you end up having to rest for a few days to get the aches and pains under control. So your body is then telling you that you've done the wrong thing.

Int.2 (p.5): Well I would use the example of when I get gastric reflux which can get really quite serious at times. I've got to be really careful of it. I have found that if I eat certain foods at the wrong time of the day and try to sleep after it where I'm lying down flat, I'm going to be in trouble. So I've learnt over time that that is going to be the reaction to it and to behave differently.

Category 4: Health Information Literacy is experienced as preserving myself

Meaning:

In this category people see health information literacy as protecting and preserving their health.

Focus:

In this category, the primary focus is on ***self-protection***.

Illustrative quotes:

Int.4 (p.2): I mean I used to be a smoker as well. But now I've given up smoking, I haven't smoked for a number of years, and I stopped smoking long before we got the advertisements on cigarette packets and those kinds of things. Simply because there came to be a time in my life where I thought I want to be able to run around with my grandchildren still. I want to be able to do things, I want to be able to walk up stairs without puffing.

Int.4 (p.3): So all the information that became available on cardiovascular diseases that are caused through smoking, and seeing pictures of that. We always knew about that, that never stopped me from smoking, but it was about wanting to have a choice of a healthier lifestyle for as long as I possibly could have, without being dependent on the health system, or anybody else to take care of me as I got older, was very important to me. So I used that information to give up smoking finally.

In this category, the stimulus for engaging with information is triggered by internal factors. Interviews suggest that this relates to being aware of engaging in practices or behaviours which are known to be harmful and will impact on future health. The individual's "view" of their current health status is focussed on "unwellness" and "being unhealthy" in that there is conscious awareness of engaging in practices or behaviours which will adversely affect future health.

Use of information occurs when known information becomes personally meaningful or relevant that will reduce or eliminate risks to maintaining future wellness, and provide individuals with a choice to adopt a healthier lifestyle. This information is implemented in a considered manner with evidence to suggest initial deliberation or rejection of information has occurred. Data also suggests there is conscious acknowledgement that health issues will arise as a result of natural ageing, and engaging in practices known to be harmful can lead to forms of incapacity that could otherwise have been prevented.

Illustrative quote:

Int.4 (p.3):it made me think that I don't want to be dependent on the health system, or on my children to have to care for me through the choices I've made myself – not through some incapacity that came out of nowhere, but by making choices to live a healthier lifestyle and to stop doing things to myself that were going to harm me.

Category 5: Health Information Literacy is experienced as screening knowledge

Meaning:

In this category health information literacy is seen as screening information to make health choices.

Focus:

In this category the primary focus is on ***filtering information***.

Illustrative quotes:

Int.2 (p.3): I think that I've got to the stage over the years of knowing that I needed to look at the source of where I was getting the information from, what the background to that information was.... But I've also learnt over the years to look at these things, throw out what you don't like, or what you don't think is appropriate, take hold of the stuff you do.

Int.1 (p.1): I sometimes find they give you so much information it's very difficult to disseminate what they are trying to get at. So I just take on board what I want to take on board for my lifestyle.

In this category the stimulus for engaging with information is derived from external factors and reflects situations or instances where information is serendipitously encountered. The individual is consciously aware of the volume and diversity of health information resources available, and how confusion can occur when large amounts of information are available and when conflicting information is received. Interviews suggest that these factors exist as drivers for needing to sort health information and for this reason the individual's focus is directed towards filtering information as a tool to either retain or reject information.

Information use resembles a process of filtration whereby information retrieved from external sources is screened against internal sources such as personal beliefs and values, existing health knowledge and established or desired lifestyles. Implementation of information occurs as a considered process with information being retained or rejected as a result of analysis and evaluation against these factors.

Illustrative quote:

Int.4 (p.6): Part of my belief system is that I don't eat pork or things like that. And that's part of my faith and in my belief system. So for me to choose to eat pork just because there's research out there that says that it's the best thing since sliced bread. That would go against my values and belief system, so I wouldn't do it.

Category 6: Health Information Literacy is experienced as storing knowledge.

Meaning:

In this category health information literacy is seen as accumulating information on wellness.

Focus:

In this category the primary focus is on ***stored knowledge***.

Illustrative quotes:

Int.4 (p.2): I keep a filing cabinet at home and when I get stuff like that [health information] I put it in a file. So there a file in my cabinet that's about health and fitness. And I refer to that, I go back to it, if there's something on my mind. I don't always put it into practice but I know it's there and I can refer to it and look at it.

Int.1 (p.5): But as I say I glanced at it [health information], but then it went back in the folder. I know where it is when I want the information. I don't need the information now.

In this category the stimulus for engaging with information is derived from external factors. The way in which information resources are obtained suggest a process which is passive in nature whereby information is encountered rather than pursued. Interviews suggest that information implementation resembles a postponed or delayed process whereby information is stored for the purpose of future rather than immediate use.

Illustrative quote:

Int.1 (p.5): When I'm old and decrepit I'll come back to it.

The nature of information resources stored include physical and non-physical forms. With respect to physical sources of information this includes various print media such as books and pamphlets relating to various health issues and reflects a process of conscious knowledge storage.

Analysis of interview data suggests that age may play a part of the impetus to store physical information. This involves an awareness of implications arising from the natural process of ageing whereby a gradual loss of long term memory is likely to occur. In this instance, storage of information presents as a conscious process, where the identified purpose of the information is a

future resource of reference when assistance is needed to remember 'what is healthy'.

Storage of non-physical information resources refers to a subconscious accumulation of knowledge. This is information that has been stored or 'taken in' over time either consciously or unconsciously. It is seen as information encountered as part of the journey through life and can be accessed when or if an information need arises.

Discussion & Future Directions

This research has provided initial insight into how health information literacy is experienced within a community context through exploring how ageing Australians experience using information to learn about their health. This study has found six different categories of how health information literacy can be experienced, ranging from purposeful identification of information to stored knowledge. These categories articulate the way participants experience health information literacy using their language. This section will focus on how the findings relate to:

- health information seeking and health information behaviour research
- information literacy research
- health communication and education
- future research directions

Health information seeking and health information behaviour research

The findings add further dimension to previous efforts undertaken in the areas of health information seeking and health information behaviour by examining information use in a broader context and a more holistic and collective sense. It has revealed how individuals experience their health information world including situations or instances which fall outside of an active or proactive information seeking experience.

Information literacy research

This research also relates to existing information literacy thinking whereby information literacy is viewed as 'experiencing different ways of using information to learn' (Bruce, 2008, p.5). The preliminary findings presented also inform and contribute to the development of a community information literacy research agenda.

It has further uncovered some insights into what people constitute as being information used for maintaining health. Focus on 'bodily information' is of particular interest as it reflects similar findings by Lloyd, in her exploration of information literacy amongst fire-fighters. Notably, research findings relating to the use of the body as an information source and visual imagery representing 'unwellness' are sources not previously identified through findings from health information behaviour research.

Health communication and education

The findings presented are of significance to the areas of health communication and health education, as they begin to establish greater understanding about how people engage with information environments for health purposes. These findings can also assist with the development of health programs and promotions that have been informed by evidence based practice.

For the library and information profession these findings may assist with the development and implementation of health information literacy endeavours in community environments. Adopting a more holistic perspective health information literacy also presents an opportunity for the profession to demonstrate its importance and relevance in today's world by working to enhance this skill within individuals and the wider community.

Future research

At present the research outcomes outlined are preliminary in nature. Further data is needed to uncover the true extent of variation that exists with this phenomenon and there may be additional categories of experience yet to be determined. At this point in time there has been no attempt to define

relationships or interrelationships between the categories or if the categories identified constitute a hierarchy of experience.(Bruce, 2000; Edwards 2007).

Future research will focus on increasing the sample size until a saturation point is achieved. In addition, the inclusion of males into the research sample along with candidates who identify as being 'unwell' such as those suffering from chronic disease or obesity are considerations for future research endeavours. This will enable examination of whether the phenomenon is experienced differently between people of different gender or health status, provide additional insight into awareness structures which underpin each category, and may reveal other categories not yet identified.

Conclusion

Health information literacy is an emerging topic within the library and information profession and provides immense scope for further research and exploration to be undertaken. The paucity of research exploring information literacy in community and everyday contexts has been acknowledged and the issue of health information literacy clearly falls within this paradigm.

A range of factors stand to support the promotion of health information literacy within the community. These entail holistic changes which have occurred in health care systems, the growing trend of health information seeking and in a broader context, the acknowledged importance and relevance of information literacy as an essential skill for empowerment and survival in our modern information-rich world.

Prior to this study, there was no evidence of research endeavours into health information literacy. This research has begun to reveal how health information literacy is experienced within a community context and more specifically how ageing Australians are using information to maintain health. Research findings have identified six categories which reflect variation in the way that health information literacy is experienced. These categories add further dimension

to existing research undertaken in the areas of health information seeking and health information behaviour.

Health information literacy represents a new terrain for information literacy research and given the importance of health to individuals and the wider community, it is an issue which undeniably warrants further attention and exploration. For the library and information profession it also poses a unique opportunity to demonstrate its continued value and importance by helping to promote and enhance this within our communities, and to play a significant role in helping to shape and create a more health information literate nation.

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